

FORM PTO-1390  
(REV. 12-2004)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER  
1454.1612TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371U.S. APPLICATION NO. (if known, see 37 CFR 1.5  
(Unassigned)

10/534114

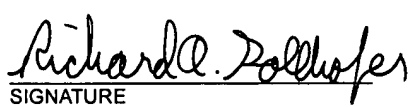
INTERNATIONAL APPLICATION NO.  
PCT/DE2003/003221INTERNATIONAL FILING DATE  
26 September 2003PRIORITY DATE CLAIMED  
6 November 2002TITLE OF INVENTION  
MEASURING ELEMENT FOR DETERMINING A FLOW RATEAPPLICANT(S) FOR DO/EO/US  
Siegfried BIRKLE et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The US has been elected (Article 31).
5. ☐ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☒ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☒ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☐ have not been made and will not be made.
8. ☒ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☒ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

## Items 11 to 20 below concern document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A preliminary amendment.
14. ☐ An Application Data Sheet under 37 CFR 1.76.
15. ☒ A substitute specification.
16. ☐ A power of attorney and/or change of address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.
18. ☒ A copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information: Copies of International Search Report, International Preliminary Examination Report, letter submitting Article 19 Amendment and Form PCT/IB/346.

U.S. APPLICATION NO. (If known, see 37 CFR 1.5) (Unassigned) <b>10/534114</b>		INTERNATIONAL APPLICATION NO. PCT/DE2003/003221		ATTORNEY'S DOCKET NUMBER 1454.1612	
21. <input checked="" type="checkbox"/> The following fees are submitted:				APPLICANT USE	OFFICE USE ONLY
<input checked="" type="checkbox"/> a) Basic National Fee ..... \$300.00				\$ 300.00	
<input checked="" type="checkbox"/> b) Examination Fee ..... \$200.00				\$ 200.00	
<input checked="" type="checkbox"/> c) Search Fee ..... \$500.00				\$ 500.00	
<b>TOTAL OF ABOVE CALCULATIONS = \$1000.00</b>				\$1000.00	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each addition 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Rate		
* - 100 =	*/50=		X 250.00		
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	23- 20 =	3	x \$50.00	\$150.00	
Independent claims	3- 3 =	0	X \$200.00	\$ 0.00	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+ \$360.00	\$
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$1150.00	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				\$	
<b>SUBTOTAL =</b>				\$1150.00	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
<b>TOTAL NATIONAL FEE =</b>				\$1150.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				+ \$ 40.00	
<b>TOTAL FEES ENCLOSED =</b>				\$1190.00	
Amount to be refunded:				\$	
Amount to be charged:				\$	
a. <input checked="" type="checkbox"/> A check in the amount of \$1,190.00 to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 19-3935. A duplicate copy of this sheet is enclosed. d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. <b>Credit card information should not be included on this form.</b> Provide credit card information and authorization on PTO-2038.					
<b>NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the application to pending status.</b>					
SEND ALL CORRESPONDENCE TO:			 SIGNATURE		
Staas & Halsey LLP			Richard A. Gollhofer		
1201 New York Avenue, N.W., Suite 700			NAME		
Washington, DC 20005			31,106		
			REGISTRATION NUMBER		

10/534114

JCCC Rec'd PCT/PTO 06 MAY 2005

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Your reference

Our Reference 2002P13061WO

SDa/Koe

Date August 10, 2004

Application No.	PCT/DE03/03221
Applicant	Siemens Aktiengesellschaft
Communication dated	July 20, 2004

In accordance with Article 19, new claims pages 16 to 19 are submitted in the attachment, in order to replace the original set of claims.

No statement in accordance with Article 19(1) is being issued.

The following statements should be regarded as an attached covering letter:

The original claim 1, the original claim 6 (new claim 5) and the original claim 14 (new claim 13) have been amended. The original claim 4 has been deleted. All the other original claims remain unchanged. Owing to the deletion of the original claim 4, the original claims 5 to 25 have been renumbered and matched to the

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Page 2 of the letter dated August 10, 2004  
to the International WIPO Office  
Our reference 2002P13061WO

appropriate references.

In the precharacterizing clause of claim 1, the feature "conductor (4)" has been defined more precisely by the conductor being an "optical waveguide (4)". This feature is the subject matter of the original claim 4, which it has thus been possible to delete. In the characterizing part of the main claim, the feature "optical waveguide (4)" has been defined more precisely in that "the optical waveguide (4) comprises at least two fiber Bragg grating sensors". Furthermore, in the characterizing part of the claim, the fiber Bragg grating sensors are specified as the point at which the electromagnetic wave which can be injected can be influenced on the basis of the optical waveguide temperature, which is dependent on the flow rate of the fluid. These features are supported by the description relating to Figure 13 and Figure 5 in conjunction with page 11, lines 20 to 32 and page 13, line 34 to page 14, line 11. The more precise definition of the feature "conductor" as an "optical waveguide (4)" has also been adopted in a consistent manner in the original claim 6 (new claim 5). The other original independent claim 14 (new claim 13) has likewise been made more precise at the appropriate points, by analogy with the changes in the main claim 1.

Siemens Aktiengesellschaft      Attachment

[signed]

New patent claims 1 to 24

pp Schwalm

(1 copy)

No. 144/74 Ang-AV

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